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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,957	09/10/2003	Tanveer R. Khondker	42P16654	5863
8791 7590 12/13/2007 BLAKELY SOKOLOFF TAYLOR & ZAFMAN 1279 OAKMEAD PARKWAY SUNNYVALE, CA 94085-4040			EXAMINER ABRAHAM, ESAW T	
			ART UNIT 2112	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/659,957

Applicant(s)

KHONDKER ET AL.

Examiner

Esaw T. Abraham

Art Unit

2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 25-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 25 is/are rejected.
- 7) ☒ Claim(s) 9-18, 26 and 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04/27/06 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims **1-18 and 25-27** are presented for examination

Election Restriction

2. Applicant's election without traverse of Group I, claims 1-18 and 25-27 are acknowledged.

Oath Declaration

3. The oath/declaration filed on 04/27/06 is acceptable.

Drawings

4. The drawings are objected to because:

Figure 1 should be designated by a legend such as --- **prior art** --- (see MPEP 608.02(g)).

A proposed drawing correction or corrected drawings are required in reply to the office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Corrected drawings sheets in compliance with 37 CFR 1.121(d) are required in reply to the office action should include all the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended". If a drawing figure is to be cancelled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheet may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be

labeled "Replacement Sheet" in the page header so as not to obstruct any portion of the drawing figures. If the changes are not acceptable by the examiner, the applicant will be notified and informed of any required corrective action in the next office action. The objection to the drawings will not be held in abeyance.

Specification

5. The specification is objected to because:
- On page 7 line 21, there should be a period after the "clock speed".
 - The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Correction is requested.

Claim objections

6. Claims 2, 5, 10 and 15 are objected to because of the following informalities:

6.1. In line 2, the claims recites, "(or FLB)" and it should recite, --- (FLB) --- to show proper antecedent.

6.2. Claims 1, 9, 14, 26 and 26 require **indentation**. Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(m). Appropriate correction is required

6.3. Claims 25, line 2, the claim recites, "an central" and it should recite, ---a central--- to show proper antecedent.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

7. Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- In line 2, the claim recites, "control 10 loopback test". It is not clear what the "control 10 loopback test" meant. The examiner would appreciate if the Applicant would clarify this matter.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S. C. 102 that form the basis for the rejections under this section made in this Office action:

~~A person shall be entitled to a patent unless -~~

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims **1-8 and 25** are rejected under 35 U.S.C. 102(e) as being anticipated by Miura (U.S. PN: 6,789,224).

As per claim 1:

Miura substantially teaches or discloses a method for testing an integrated device (see title and col. 4, lines 3-6) comprising strobing a data with a strobe edge (see col. 4, lines 53-55); and measuring a setup parameter (see col. 7, lines 64-67 to col. 8, lines 1-5) for at least one input/output circuit by pulling in the strobe edge in predetermined decrements up to a single phase of a clock (col. 4, lines 58-67 to col. 5, lines 1-5 and col. 11, lines 28-48).

As per claim 2:

Miura substantially teaches measuring the setup parameter comprises providing data from a functional logic block (or FLB) within the integrated device (see col. 7, lines 22-28, col. 7, lines 64-67 to col. 8, lines 1-5).

As per claim 3:

Miura substantially teaches wherein providing data comprises driving the data out through an output component of at least one input/output circuit (see figure 6, the DUT or “device-under-test”).

As per claim 4:

Miura substantially teaches wherein the strobe edge is on a falling edge of the clock and the data is on the rising edge of the clock (see col. 5, lines 6-22 and col. 13, lines 27-35).

As per claim 5:

Miura substantially teaches a method for testing an integrated device (see title and col. 4, lines 3-6) comprising strobing a data with a strobe edge (see col. 4, lines 53-55); and measuring a hold parameter (see col. 7, lines 64-67 to col. 8, lines 1-5) for at least one input/output circuit by pulling in the strobe edge in predetermined decrements up to a single phase of a clock (col. 4, lines 58-67 to col. 5, lines 1-5 and col. 11, lines 28-48).

As per claim 6:

Miura substantially teaches measuring the hold parameter comprises providing data from a functional logic block (or FLB) within the integrated device (see col. 7, lines 22-28, col. 7, lines 64-67 to col. 8, lines 1-5).

As per claim 7:

Miura substantially teaches wherein providing data comprises driving the data out through an output component of at least one input/output circuit (see figure 6, the DUT or “device-under-test”).

As per claim 8:

Miura substantially teaches wherein the strobe edge is on a falling edge of the clock and the data is on the rising edge of the clock (see col. 13, lines 27-35).

As per claim 25:

Miura substantially teaches An apparatus (see col. 4, lines 3-6) comprising a plurality of input/output circuit (see figure 6, the DUT or “device-under-test”) to be tested by an central control loopback test that strobes a data with a strobe edge (see col. 5, lines 6-22); and measures a setup parameter for at least one input/output circuit by pulling in the strobe edge in predetermined decrements up to a single phase of a clock (col. 4, lines 58-67 to col. 5, lines 1-5 and col. 11, lines 28-48).

Allowable subject matter

9. Claim 26 and 27 objected to as being dependent upon a rejected base claim but would be allowable if rewritten independent from including all of the limitation of the base claim and any intervening claims. Below are Examiner's reasons for indication of allowable subject matter:

The claimed invention comprises the apparatus to invert the clock after the strobe edge has been pulled in by at least the single phase of the clock; and hold the strobe edge constant, after the strobe edge has been pulled in by at least the single phase of the clock, while pushing the data out in predetermined increments (as in claim 26) which the prior art do not teach or render obvious.

Claim 27, which is directly or indirectly dependents of claim 26 is also objected.

10. Claims 9-18 would be in condition for allowance once the minor informalities noted in the "Claim objections" are corrected and reviewed by the Examiner. The following is a statement of reasons for the indication of allowable subject matter:

~~Independent claim 9 of the present application teaches, for example, a method for testing an~~
integrated device comprising: strobing a data with a strobe edge; and measuring a setup parameter for at least one input/output circuit by pulling in the strobe edge in predetermined decrements up to a single phase of a clock, inverting the clock after the strobe edge has been pulled in by at least the single phase of the clock; and holding the strobe edge constant, after the strobe edge has been pulled in by at least the single phase of the clock, while pushing the data out in predetermined increments.

The foregoing limitations are not found in the prior arts of record. Particularly, none of the prior arts of record teach nor fairly suggest, "..., inverting the clock after the strobe edge has been pulled in by at least the single phase of the clock; and holding the strobe edge constant, after the strobe edge has been pulled in by at least the single phase of the clock, while pushing the data out in predetermined increments...."

Dependent claims 10-13 depend from allowable independent claim 9 and inherently include limitations therein and therefore are allowed as well.

Independent claim 14 includes similar limitations of independent claim 9 and therefore is allowed for similar reasons.

Dependent claims 15-18 depend from allowable independent claim 14 and inherently include limitations therein and therefore are allowed as well.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Esaw T. Abraham whose telephone number is (571) 272-3812.

The examiner can normally be reached on M-F 8am-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques can be reached on (571) 272-6962. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Esaw Abraham

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December 05, 2007